

<http://farragofiction.com/RigidHeddleSim/>

It looks like the resources I used to make this no longer exist, which is fun.

It's FAR more complicated than it needs to be just to teach someone how to use two heddles. You can ignore most of it unless you want to create your own patterns.

# Tutorial

## Definitions (just in case)

Heddle: The rigid thing that has holes and long slits across it. It moves threads and can be positioned either UP or DOWN on the loom.

Warp: The long threads going up and down the work. If its a scarf or something similarly narrow, its the long threads. You put these on the loom before weaving. For plain weave with a single heddle, they alternate between going in the holes of the heddle and the spaces between the holes. Only the threads inside the holes will move.

Weft: The short threads going side to side in the work. If it's a scarf or something similarly narrow, its the short threads. The weft is what you weave, after the loom has already been set up and warped. You place the weft by going back and forth with a shuttle while moving the heddle up and down.

Pick: One pass of the shuttle from one side of the fabric to the other.

## Basics

Click any pre-created template on the right to load up how you should set up you warp and weft to create it.

# Templates

## DoubleHeddle

2-1-Twill  
BullseyeTwill  
ChevronTwill  
HuckLace  
HuckLace2  
HuckLace3  
LogCabinHuck  
PlainWeave  
PointTwill  
SwedishLace  
SwedishLace2  
WindowPaneWaffle

## Experimental

CWMW  
CWUT  
DoubleHeddleWindowPane  
Lattice  
ModifiedWaffleWeave  
MsAndWs  
MsAndWsMirror  
UndulatingBullseye  
UndulatingTwill  
UndulatingTwillMirror

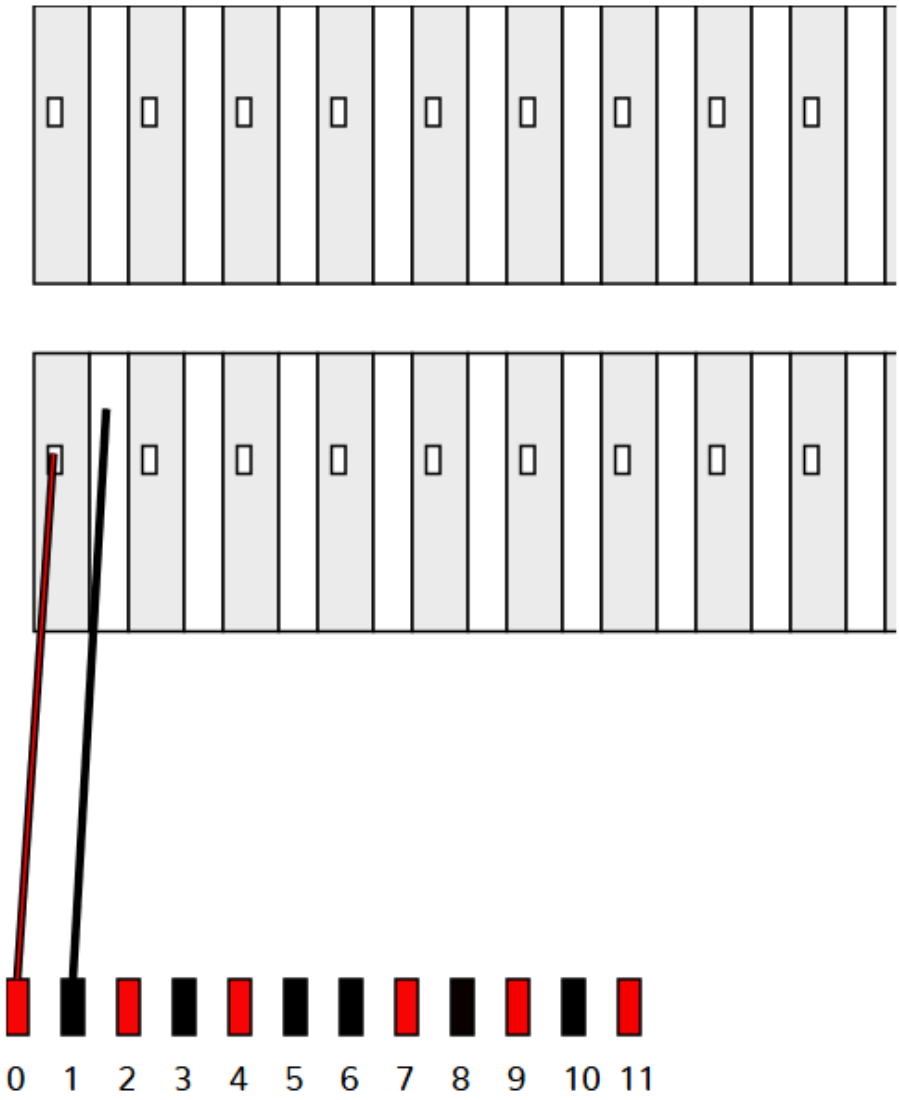
## SingleHeddle

HoundsTooth  
LogCabin

There are advanced controls for things like changing the colors of things or helping in the task of creating a new pattern but are beyond the scope of this tutorial. You can safely ignore all controls.

# SINGLE HEDDLE

Shown below is the heddles, showing the threads, and what colors you need to warp. This pattern, Log Cabin, only needs one heddle and so is plain weave. It is alternating color threads that occasionally double a color and switching which is first for a while.



Show below is the wefts you weave, and the sample of what the finished cloth would look like. For log cabin you simply alternate colors the same pattern you did the warp. Because it only uses one heddle, the second heddle is marked as “neutral”. (i.e. if you DID thread it for some reason, you’d never move it up or down). Anything using only a single heddle and nothing else is plain weave.

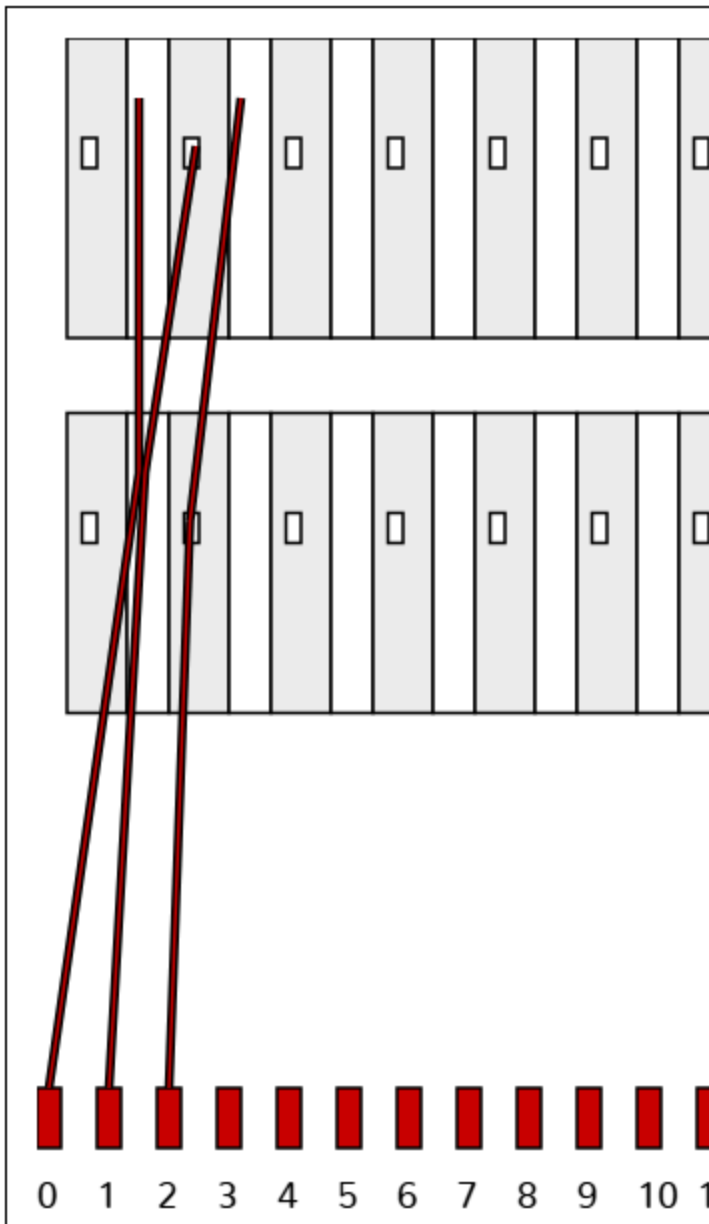


Getting your warp alternating colors can be a challenge with direct warping, if I remember right.

## Double Heddles

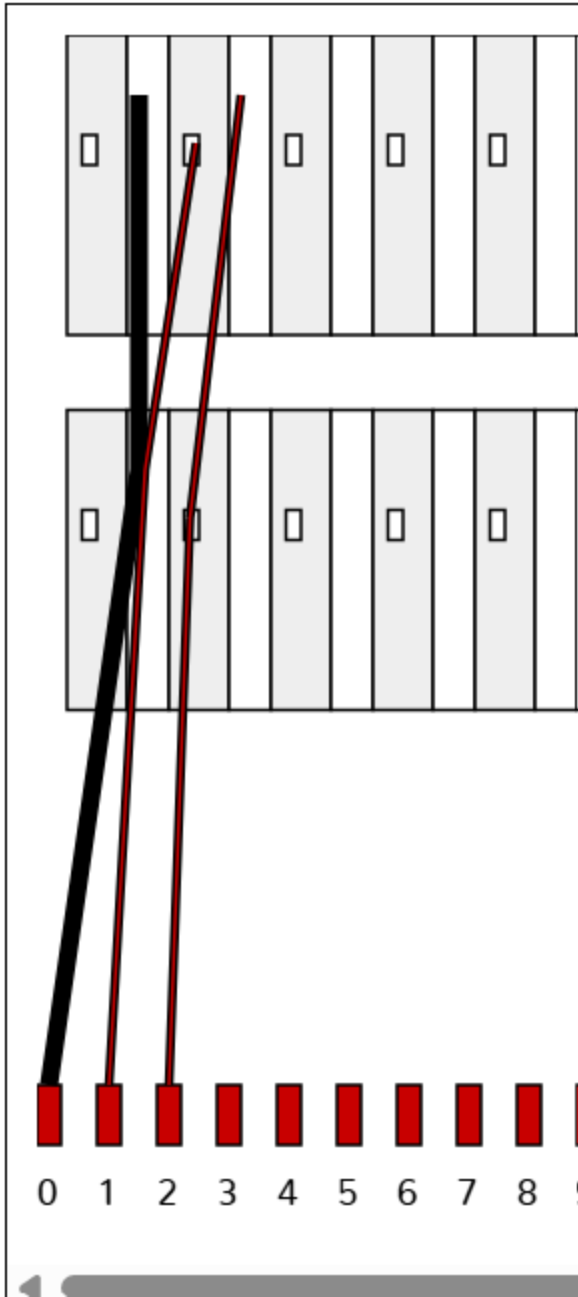
To thread two heddles you essentially change which heddle controls a thread. A thread can be controlled by neither (it goes through the slot of both), by the first heddle (going through a hole in it) or through the second heddle (going through a hole in it). A thread will usually only go through a single hole in a single heddle.

Example of what the heddle looks like for 2-1 twill (what denim jeans are made of iirc).

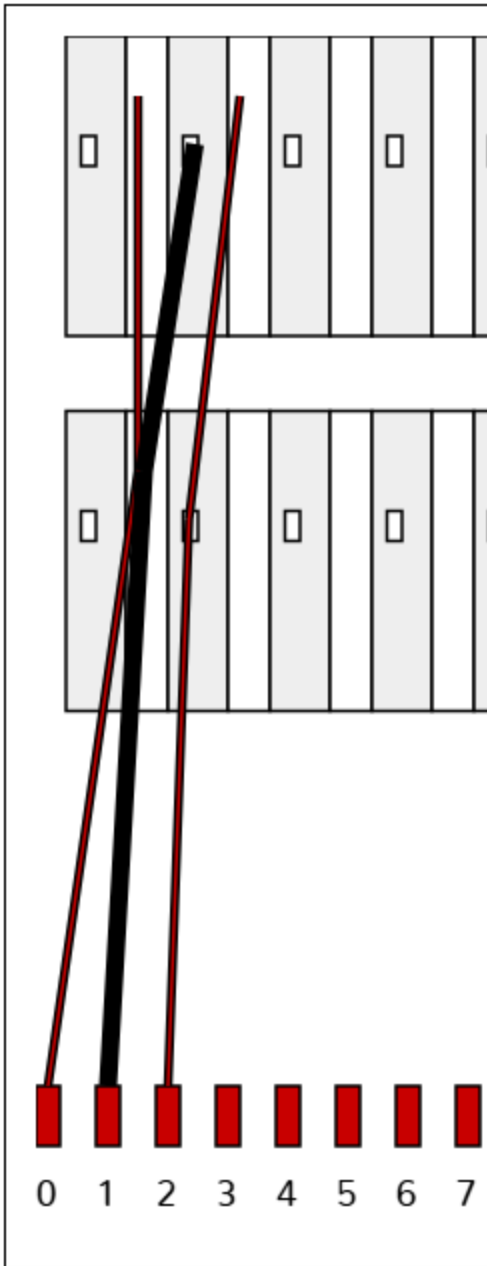


The program lets you mouse over a thread to highlight it in case its hard to see.

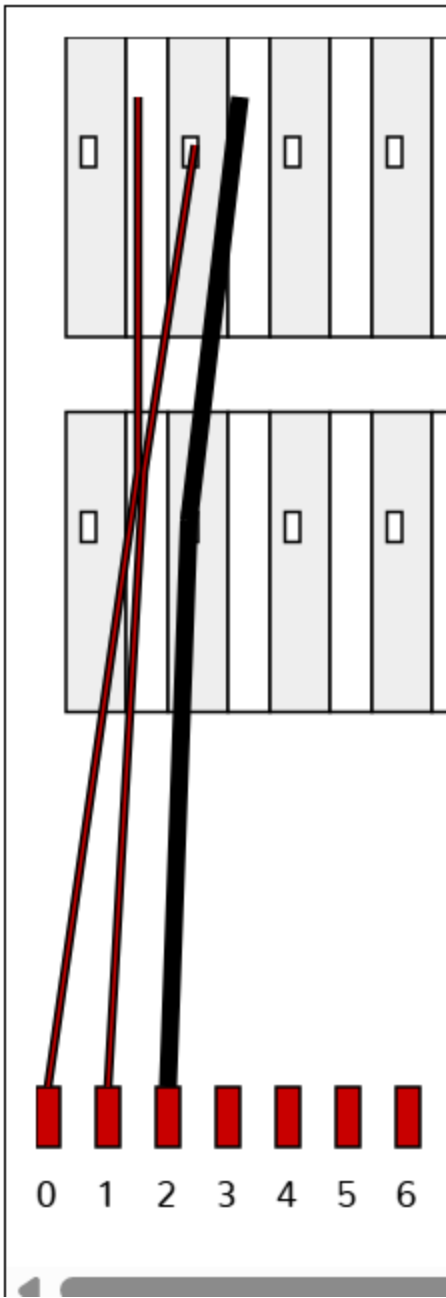
The first thread in the warp doesn't go through either heddle.



The second goes through the back heddle.



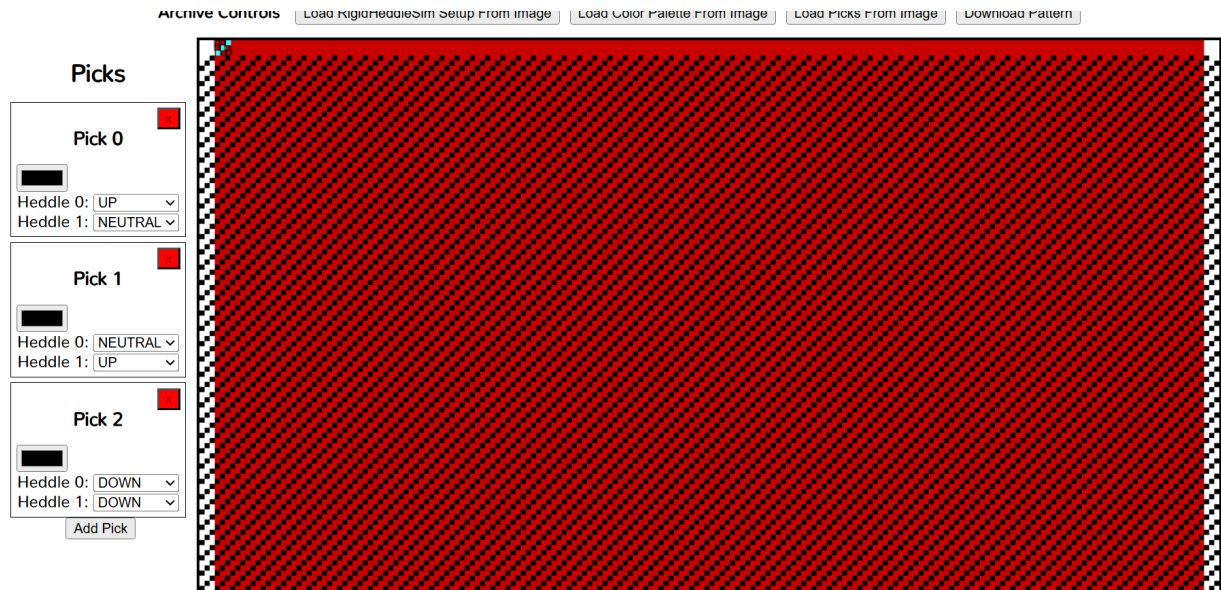
And the third through the front heddle.



That means the second and third threads can be raised or lowered along with their heddle, while the first thread will always stay in the same space. Repeat this pattern of warping for

The weaving of the weft is more complex for using two heddles as well:





The first pick you do, you weave with the closest heddle to you in the “up” position and the other neutral. Then you switch the heddles position. Your third pick you have both heddles down (thus having the ‘neutral’ thread in the ‘up’ position relative to them).

In this way each thread is on top every third picks, getting that strong diagonal pattern.

## Pick up Sticks

\* Note: Any pattern that only goes UP or NEUTRAL in the second heddle can be replicated via a single pickup stick.

A pickup stick is when you thread your rigid heddle as normal with a single heddle for plain weave. Then, after it is warped, behind the loom you pick up some threads with a stick to be additionally manipulated (either once for each pick, or a set of them to always be raised on top of the neutral heddle). It is beyond the scope of this tutorial to explain them but its a good vocabulary term to know.

## Example:

Bullseye Twill



What it looks like in the Simulator:

